

NAKANO ET AL. - 10/724,685
Attorney Docket: 008312-0306986

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IN THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application:

1. (Cancelled)

2. (Currently Amended) ~~[[The]]~~ A disk apparatus according to claim 1, wherein the muting unit comprises section which mutes the first tracking error signal when the first tracking error signal amplitude is lower than a predetermined reference, and section mutes the second tracking error signal when the second tracking error signal amplitude is lower than a predetermined reference which reproduces information by irradiating an optical beam to a disk, the disk apparatus comprising:

a photodetector which comprises two or more photodetection cells, receives a reflected light from a disk, and outputs a photodetection signal based on the received reflected light;

a first tracking error signal generator which detects a phase difference between the photodetection signals from the photodetector, and generates a first tracking error signal corresponding to the phase difference;

a first variable amplifier which varies the amplitude of the first tracking error signal;

a second tracking error signal generator which detects a level difference between the photodetection signals from the photodetector, and generates from the photodetection signal a second tracking error signal corresponding to the level difference;

a second variable amplifier which varies the amplitude of the second tracking error signal;

a combining unit which combines the first and second tracking error signals generated by the first and second variable amplifiers, and provides a combined tracking error signal;

a muting unit which mutes one of the first and second tracking error signals when the amplitude of the one of the tracking error signals is lower than a predetermined reference;
and

a tracking control unit which controls tracking by using the tracking error signal combined by the combining unit.

3. (Currently Amended) ~~[[The]]~~ A disk apparatus according to claim 1, which

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reproduces information by irradiating an optical beam to a disk, the disk apparatus comprising:

a photodetector which comprises two or more photodetection cells, receives a reflected light from a disk, and outputs a photodetection signal based on the received reflected light;

a first tracking error signal generator which detects a phase difference between the photodetection signals from the photodetector, and generates a first tracking error signal corresponding to the phase difference;

a first variable amplifier which varies the amplitude of the first tracking error signal;

a second tracking error signal generator which detects a level difference between the photodetection signals from the photodetector, and generates from the photodetection signal a second tracking error signal corresponding to the level difference;

a second variable amplifier which varies the amplitude of the second tracking error signal;

a combining unit which combines the first and second tracking error signals generated by the first and second variable amplifiers, and provides a combined tracking error signal;

a tracking control unit which controls tracking by using the tracking error signal combined by the combining unit; and

wherein the muting unit comprises section which mutes one of the first and second tracking error signals when the amplitude of the one of the tracking error signals is lower than a predetermined reference.

4.-8. (Cancelled)